REMARKS

This is in response to the Office action dated December 27, 2002. Claims 1-2 are pending. Applicants have amended specification to correct minor typographical errors and request reconsideration and reexamination of the application.

On page 2 of the Office action, the Examiner objected to the specification on page 12, line 6-7. The specification says "that in applies power to the...." Applicants address the objection by deleting term "in" in this clause. Applicants also correct a typo on page 13, line 1, referring to diverter 10 as shown in Figure 6. Figure 6 shows that this should read diverter 50 as amended.

On page 2 of the Office action, the Examiner rejected claim 1 under the doctrine of obviousness-type double patenting over claim 1 of U.S. Patent No. 6,367,735 to Folsom et al. Applicants requests this rejection be held in abeyance until patentable subject matter is indicated with respect to claim 2.

On pages 3-4 of the Office action, the Examiner rejected claim 2 under 35 USC 103 (a) as unpatentable over U.S. Patent No. 3,028,807 to Burton et al. (Burton) in view of U.S. Patent No. 6,338,500 B1 to Perotto (Perotto). Specifically, the Examiner states that Burton discloses all the limitations of claim 2 except for use of a semiconductor bridge and primer as the detonating mechanism. However, the Examiner states that Perotto teaches a detonator that uses a semiconductor bridge and prime to initiate the ignition of a main propellant, similar to the device of Burton. The Examiner concludes that it would have been obvious to modify Burton to use the semiconductor bridge and prime of Perotto as an improved detonator.

However, obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination. The mere fact that references can be combined does not render the combination obvious unless the prior art suggests the desirability of the combination.

It is useful to consider whether or not it is desirable to modify Burton to use some components of the Perotto air bag initiator. First, we note that Burton relates to a missile guidance system that is far from the field of air bag initiators. Burton also fails to list what specific requirements must be met by the detonator 28. Further, although we do not know what is required of the detonator 28, we note that column 2, lines 60-65 and Figure 5 of Burton teach that the detonator 28 must have sufficient energy to span the air gap and ignite the propellant 32 without the aid of a prime.

Perotto relates to an air bag deployment system having an air bag initiator 12 as shown in Figures 1-2. The air bag initiator 12 fails to provide structures that improve upon the detonator 28 of Burton (see col. 5, lines 47-64). First, the resistive heating element 23 and starting pyrotechnic composition 24 are in close contact with each other. This indicates only a low energy output is delivered by the resistive heating element 23. Second, the resistive heating element 23 and starting pyrotechnic composition 24 are close contact with a mixture 35. Again, this suggests only low energy is released. Further, the energy released from the mixture 35 only ignites closely adjacent explosive composition 29 through a central perforation 33. This sets off a perforating shot along axis 4 that is intended to break a cover 38, then the diaphragm closing the opening 15 and the diaphragm 9 closing the opening in the front wall 8 of the hollow body 5 to allow the inert cold gas 10 to escape through the opening, enter the chamber for mixing and discharging gases 17 and finally escape through the gas discharge orifices 6 and initiate deployment of the air bag (not shown). Thus, the objective is to break various walls to release air bag gases not to generate a diverting force. None of these structures either together or apart will provide an improved detonator 28 for Burton.

There is also no suggestion that the resistive heating element 23 and composition 24 should be extracted from the initiator 12 much less should be used in a projectile diverter in a missile. The structures in question perform a different function, involving low energy not suitable for a missile as described in Burton. Even if we don't know exactly what is required to work as a detonator in the Burton missile guidance system, the suggestion to extract two components from an air bag initiator to improve upon a

missile detonator is based on hindsight. That is, applicant's teaching was used as a blueprint to hunt through the prior art for the claimed elements and then combined as claimed. Thus, there is an insufficient basis to combine or modify these references as suggested and claim 2 would have been non-obvious over these references. In view of the above, applicants respectfully submit claim 2 is allowable and the application is condition for allowance once a terminal disclaimer is filed.

Please call the undersigned if you have any questions, comments, or if it will expedite the progress of the application.

Respectfully submitted,

Robert Moll

Reg. No. 33,741

Robert Moll
1173 St. Charles Court
Los Altos, CA 94024
Tel: 650-567-9153
Fax: 650-567-9183
Email: rgmoll@patentplanet.com